



Delta forming at mouth of Ravine

Whitmore Ravine

FACTS SENATE NATURAL RESOURCES

EXHIBIT NO. 1

DATE 3-9-07

BILL NO. HI 20

- Whitmore Ravine is located on the eastern fringe of Great Falls
- Documented Lewis and Clark Expedition site
- Transects a popular riverside trail along the Missouri River
- Whitmore Ravine originates approximately 1.3 miles to the south of the Missouri River
- The Ravine includes 3 distinct forks
- Malmstrom Air Force Base has historically used the Ravine as a storm water conduit
- The land adjoining the Ravine is farmed or grazed and the land managers used to drive equipment over the Ravine to farm
- In recent years, noted increase in flow and sediment have been delivered into the Missouri River
- A Whitmore Ravine Stakeholders Task Force was formed in 2003, complete with ground rules and bylaws. The Cascade County Conservation District, members of the community, Malmstrom Air Force Base and other stakeholders are members
- Montana's congressional delegation is aware of Whitmore Ravine and has provided a great deal of support to the project. Representative Rehberg has toured the site. Senator Baucus requested FY2007 Special Appropriations for the Ravine, Senator Burns, Baucus and Representative Rehberg's staff regularly attends meetings. Representative Rehberg and Senator Baucus wrote letters to the Department of Defense in 2006 encouraging them to send a team to Malmstrom Air Force Base to evaluate the site.
- In 2003, a comprehensive assessment of Whitmore Ravine was completed at the request of the Cascade County Conservation District
- In 2005, the Cascade County Conservation District signed a contract with Thomas, Dean & Hoskins Inc. to complete a feasibility study and to present several alternatives to the stakeholders.
- The USDA Natural Resources and Conservation Service completed the comprehensive assessment in 2003. In addition, engineers have evaluated the site and Montana's State Conservationist is in full support of the project moving forward.
- The Cascade County Commissioners play a key part in this project.
- The State of Montana has been active an active stakeholder. The Governor's office has attended a few meetings and is aware of the erosion that has occurred.
- Montana Fish, Wildlife and Parks are working to obtain a conservation easement on the lower reaches of the Ravine and are key stakeholders



Cascade County
Conservation
District

- The Erosion Control Feasibility Study, that was completed in 2006 estimates that 470,000 tons of sediment has entered the Missouri River
- TD&H also estimates that the delta yields a surface area of 270,000 square feet.
- The Study also estimates that in some place the eroded depth of the ravine is as much as 50 feet with vertical slopes in many areas
- The Study notes that one factor impacting the rate of erosion is land development within the drainage basin. In general, land development includes installation of homes, buildings and roads, which are all considered hard surfaces.
- The Study reviewed nine alternatives for the stakeholders that ranged from piping water all the way to the river to doing nothing. The stakeholders decided to pursue Alternative 2C, which calls for the construction of two detention ponds, one at the head of the West Fork, and one on the Middle Fork. The estimated construction cost of alternative 2C is \$3,272,000 (as of 2006).



West Fork of Whitmore Ravine looking South toward MAFB

FINANCIAL CONTRIBUTIONS

Local Tax Payer Dollars	=	\$7,800.00	Staff salary, reproduction of maps, photos, postage, misc office supplies, signs, and travel costs for supervisors and staff.
State Resources =		\$30,000.00	Grant through the Department of Natural Resources for the feasibility study to determine best alternative for mitigation. Report is finished in draft form; final is expected by the end of March.
In Kind Contributions =		\$3,700.00	Conservative figure representing volunteer hours of supervisors and landowners attending meetings, conducting field visits, attending grant hearings, etc.
Cash Match -			
CCCD		\$3,000.00	From operating account (tax payers)
Landowners		\$1,000.00	Out of pocket
Recreation Trails Inc		\$2,000.00	Out of pocket
Federal Resources or DoD Contribution =		<u>.00</u>	To date there have been no DoD or other federal contributions to this project other than MAFB personnel attendance at Task Force meetings and one MAFB hosted meeting on Base.
Total Local & State Resources		\$47,500.00	













